

1. A head-mounted illuminator configured for use with a source of light,  
2 comprising:

3 a housing with a hollow interior having a light-receiving end and a light-  
4 projecting end;

5 an optical fiber carrying light from the source of light into the interior of the  
6 housing through the light receiving end;

7 a Fresnel lens mounted in the light-projecting end of the housing for receiving  
8 light from the optical fiber and projecting the light into a field of view, the Fresnel lens  
9 having a two sides, one with a sets of grooves; and

10 wherein the grooves of the Fresnel lens face the interior of the housing.

2. The head-mounted illuminator of claim 1, wherein the light-projecting end  
1 of the housing may be moved forward and backward relative to the light-receiving end to  
3 adjust the beam diameter of the light projected into the field of view.

2. The head-mounted illuminator of claim 1, wherein the light-projecting end  
1 and the light-receiving end of the housing are connected with a threaded coupling,  
3 enabling the light-projecting end to be moved forward and backward relative to the light-  
4 receiving end to adjust the beam diameter of the light projected into the field of view.

2. The head-mounted illuminator of claim 1, wherein the Fresnel lens is  
1 made of acrylic.

2. The head-mounted illuminator of claim 1, wherein the light-projecting end  
1 of the housing is conical in shape, and terminates with a diameter larger than that of the  
3 light-receiving end.

2. The head-mounted illuminator of claim 1, further including a mechanism  
1 for mounting the housing to a wearer's head.

GSC-04502/03

32506sh

7. The head-mounted illuminator of claim 1, further including a mechanism  
2 for pivotally mounting the housing to a wearer's head.